UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1 – NEW ENGLAND

IN THE MATTER OF Millbrook Cold Storage, Inc. 9 Medford Street Somerville, MA 02143 Proceeding under Sections 113 and 114 of the Clean Air Act	**NOTICE OF VIOLATION, ADMINISTRATIVE ORDER, AND REPORTING REQUIREMENT**

INTRODUCTION

1. The United States Environmental Protection Agency Region 1 ("EPA") issues this Notice of Violation, Administrative Order and Reporting Requirement ("NOV," "AO," and "RR") to Millbrook Cold Storage, Inc. ("Respondent") for Respondent's failure to comply with Section 112(r) of the Clean Air Act ("CAA"), 42 U.S.C. § 7412(r), in the handling of anhydrous ammonia at the company's Somerville, Massachusetts, cold storage warehouse.

2. The NOV and AO are issued under the authority of Section 113 of the CAA, 42 U.S.C. § 7413. The RR is issued under the authority of Section 114 of the CAA, 42 U.S.C. § 7414. Section 113(a)(3) of the Act, 42 U.S.C. § 7413(a)(3), provides that EPA may issue an order requiring compliance with the requirements or prohibitions of Subchapter I of the Act (which include, among other things, the requirements of Section 112(r), 42 U.S.C. § 7412(r)). Section 114(a)(1), 42 U.S.C. § 7414(a)(1), authorizes EPA to require a company to submit such information and conduct such

reporting or auditing as EPA may reasonably require to determine compliance with the CAA and carry out the purposes of the CAA.

STATUTORY AND REGULATORY AUTHORITY

3. Pursuant to Section 112(r)(1) of the CAA, 42 U.S.C. § 7412(r)(1), owners and operators of stationary sources producing, processing, handling, or storing substances listed pursuant to Section 112(r)(3) of the CAA, 42 U.S.C. § 7412(r)(3), or any other extremely hazardous substance, have a general duty to (a) identify hazards which may result from accidental releases of such substances using appropriate hazard assessment techniques; (b) design and maintain a safe facility taking such steps as are necessary to prevent releases; and (c) minimize the consequences of accidental releases that do occur. This section of the CAA is referred to as the "General Duty Clause."

4. The extremely hazardous substances listed pursuant to Section 112(r)(3) include, among others, anhydrous ammonia.

5. Section 112(r) of the CAA, 42 U.S.C. § 7412(r), also authorizes EPA to promulgate regulations and programs to prevent and minimize the consequences of the accidental release of certain regulated substances. In particular, Section 112(r)(3), 42 U.S.C. § 7412(r)(3), mandates that EPA promulgate a list of substances that are known to cause or may reasonably be anticipated to cause death, injury or serious adverse effects to human health or the environment if accidentally released. Section 112(r)(5), 42 U.S.C. § 7412(r)(5), requires that EPA establish for each regulated substance a threshold quantity over which an accidental release is known to cause or may reasonably be anticipated to cause death, injury or serious adverse effects to human health. Section

112(r)(7) of the CAA, 42 U.S.C. § 7412(r)(7), requires EPA to promulgate requirements for the prevention, detection and correction of accidental releases of regulated substances, including a requirement that owners or operators of certain stationary sources prepare and implement an RMP.

6. The regulations promulgated pursuant to Section 112(r) of the CAA, 42 U.S.C. § 7412(r), are found at 40 C.F.R. Part 68 ("Part 68").

7. 40 C.F.R. § 68.130 lists the substances regulated under Part 68 and their associated threshold quantities ("RMP chemicals" or "regulated substances") in accordance with the requirements of Section 112(r)(3) of the CAA, 42 U.S.C. § 7412(r)(3).

8. Under 40 C.F.R. § 68.10, an owner or operator of a stationary source that has more than a threshold quantity of a regulated substance in a process must comply with the requirements of Part 68 by no later than the latest of the following dates: (a) June 21, 1999; (b) three years after the date on which a regulated substance is first listed under 40 C.F.R. § 68.130; or (c) the date on which a regulated substance is first present above a threshold quantity in a process.

9. Each process in which a regulated substance is present in more than a threshold quantity ("covered process") is subject to one of three Risk Management Programs. Program 1 is the least comprehensive, and Program 3 is the most comprehensive. Pursuant to 40 C.F.R. § 68.10(b), a covered process is subject to Program 1 if, among other things, the distance to a toxic or flammable endpoint for a worst-case release assessment is *less* than the distance to any public receptor. Under 40 C.F.R. § 68.10(d), a covered process is subject to Program 3 if the process does not meet

the eligibility requirements for Program 1 and is either in a specified NAICS code or subject to the Occupational Safety and Health Administration ("OSHA") process safety management ("PSM") standard at 29 C.F.R. § 1910.119. Forty C.F.R. § 68.10(c) prescribes that a covered process that meets neither Program 1 nor Program 3 eligibility requirements is subject to Program 2.

10. Forty C.F.R. § 68.12 mandates that the owner or operator of a stationary source implement the chemical accident prevention provisions of Part 68 to which it is subject and submit an RMP. The RMP documents compliance with Part 68. For example, the RMP for a Program 3 process documents compliance with the elements of a Program 3 Risk Management Program, including 40 C.F.R. § 68.12 (General Requirements); 40 C.F.R. § 68.15 (Management System to Oversee Implementation of RMP); 40 C.F.R. Part 68, Subpart B (Hazard Assessment to Determine Off-Site Consequences of a Release); 40 C.F.R. Part 68, Subpart D (Program 3 Prevention Program, including the Program 3 component described in paragraph 33 below); and 40 C.F.R. Part 68, Subpart E (Emergency Response Program).

11. Additionally, 40 C.F.R. § 68.190(b) dictates that the owner or operator of a stationary source must revise and update the RMP submitted to EPA at least once every five years from the date of its initial submission or most recent update.

12. Section 112(r)(7)(E) of the CAA, 42 U.S.C. § 7412(r)(7)(E), renders it unlawful for any person to operate a stationary source subject to the regulations promulgated under the authority of Section 112(r) of the CAA, 42 U.S.C. § 7412(r), in violation of such regulations.

13. Section 113(a)(3) of the CAA, 42 U.S.C. § 7413(a)(3), authorizes EPA to issue compliance orders for violations of the Act, including violations of Section 112(r), 42 U.S.C. § 7412(r). A copy of the order must be sent to the relevant State air pollution control agency. An order relating to a violation of Section 112 of the CAA can take effect immediately upon issuance.

GENERAL ALLEGATIONS

14. Respondent operates a cold storage warehouse at 9 Medford Street in Somerville, Massachusetts (the "Facility").

15. The Facility is located near a highway, a railway line, several businesses, and an assisted living facility for elderly persons.

16. Respondent is a corporation registered to do business in Massachusetts and is thus a "person" within the meaning of Section 302(e), against whom an Administrative Order may be issued under Section 113(a)(3) of the Act, 42 U.S.C. § 7413(a)(3).

17. Respondent operates a "stationary source" as that term is defined at Section 112(r)(2)(C) of the CAA, 42 U.S.C. § 7412(r)(2)(C).

18. Respondent's refrigeration system uses anhydrous ammonia. Accordingly, Respondent "stores" and "handles" anhydrous ammonia which, as indicated in paragraph 4 above, is an "extremely hazardous substance" subject to the General Duty Clause.

19. Anhydrous ammonia is also an RMP Chemical listed at 40 C.F.R. § 68.130, having a threshold quantity of 10,000 pounds.

20. Ammonia presents a significant health hazard because it is corrosive to the skin, eyes, and lungs. Exposure to 300 parts per million is immediately dangerous to life and health. Ammonia is also flammable at concentrations of approximately 15% to 28% by volume in air.

21. In July of 1999, Respondent filed a Program 3 level RMP with EPA for its ammonia refrigeration system. This RMP was updated several times thereafter, most recently in June of 2009 (the "2009 RMP").

22. The 2009 RMP stated that Respondent's ammonia refrigeration system contained 22,000 pounds of ammonia. Several recent EPCRA chemical inventory reports indicate that the refrigeration system contains 10,000 pounds of ammonia (including 4,000 in the largest single vessel).

23. The storage of more than 10,000 pounds of anhydrous ammonia in the Facility's refrigeration system renders the system a "covered process" as that term is defined in 40 C.F.R. § 68.3.

24. According to the 2009 RMP, the endpoint for a worst case release of anhydrous ammonia at the Facility is greater than the distance to a public receptor.

25. Storage of anhydrous ammonia is subject to OSHA's PSM requirements at 29 C.F.R. § 1910.119 if at least 10,000 pounds are present in a process.

26. As the operator of a stationary source that, according to the 2009 RMP, holds more than the threshold amount of a regulated substance in a covered process, Respondent is subject to the RMP requirements of Part 68.

27. Pursuant to 40 C.F.R. § 68.10(a)-(d), and according to the 2009 RMP, Respondent's ammonia refrigeration system is subject to the requirements of RMP

Program 3 because (1) the distance to a toxic or flammable endpoint for a worst-case release is more than the distance to a public receptor, making the process ineligible for Program 1; and (2) the process is subject to OSHA's PSM regulations.

28. On December 13, 2012, EPA conducted an inspection of the Facility (the "Inspection") to assess Respondent's compliance with CAA Section 112(r) and the Emergency Planning and Community Right-to-Know Act ("EPCRA").

29. During the Inspection, Respondent stated that the ammonia refrigeration system actually held less than 10,000 pounds of anhydrous ammonia. However, Respondent could not provide information on how it determined that the refrigeration system contained less than 10,000 pounds of anhydrous ammonia.

30. Should Respondent's refrigeration system contain less than 10,000 pounds of anhydrous ammonia, the system would be subject to the requirements of the General Duty Clause, CAA Section 112(r)(1), 42 U.S.C. § 7412(r)(1), but not to the requirements of 40 C.F.R. Part 68.

31. During the Inspection, EPA inspectors observed some potentially dangerous conditions relating to the ammonia refrigeration system, including the following:

a. Corroding piping and valves and breached vapor barriers on many pipes;

b. Piping in freezer rooms covered in so much ice that they cannot be inspected for signs of corrosion, raising concerns about their integrity and ability to withstand the weight of all the ice;

c. Valves on piping covered in so much ice that they cannot be accessed.

d. Unlabeled or inadequately labeled equipment and piping;

e. Access on stairs almost blocked by ice buildup;

f. Refrigerated product stacked up very close to the refrigerator piping in freezer rooms, risking accidental damage to that piping;

g. Emergency shut off switch (labeled "King Valve Shutoff"), located outside the machinery rooms, is too far up off the ground to reach without a ladder;

h. Manual overrides for machinery room fans are not operational because keys have been lost;

i. The air intake vent for the machinery room(s) has been blocked off;

j. The ammonia pressure relief headers for the receiver tanks are at eye-level, risking exposure to people nearby;

k. There is no qualified operator currently operating the refrigeration system;

l. No draining of oil is occurring, and there are no records of oil added to system;

m. Inadequate documentation available about the technology and equipment of the ammonia refrigeration system (for example, there is no piping and instrumentation diagram);

n. The process hazard analysis ("PHA") is incomplete and not up to date. The initial PHA was conducted in 2000 and revalidated in 2005 and 2010, but the current PHA is only a copy of previous PHAs;

o. Refrigerant detectors in machinery room(s) do not activate visual and audible alarms outside machinery room.

p. Lack of adequate lighting in freezer rooms and staircase, which could affect safe access to components of the system and endanger workers and emergency responders.

NOTICE OF VIOLATION

I. FAILURE TO IDENTIFY AND EVALUATE HAZARDS

32. The allegations in Paragraphs 14 through 31 are hereby realleged and incorporated herein by reference.

33. Pursuant to 40 C.F.R. § 68.67, the owner or operator of a Program 3 process is required to perform an initial process hazard analysis on covered processes. The process hazard analysis must identify, evaluate, and control the hazards involved in the process. Additionally, the owner or operator must update the process hazard analysis every five years and when a major change in the process occurs. Finally, the owner or operator must comply with the documentation requirements of 40 C.F.R. § 68.67.

34. Pursuant to the General Duty Clause, Section 112(r)(1) of the CAA, 42 U.S.C. § 7412(r)(1), owners and operators of stationary sources producing, processing, handling or storing extremely hazardous substances have a general duty to identify hazards which may result from accidental releases of such substances. The recommended industry practice and standard of care for ammonia refrigeration systems would be to identify hazards using industry checklists, a What-if analysis, or a Hazard and Operability study. See, for example, the International Institute of Ammonia Refrigeration's ("IIAR's") *Ammonia Refrigeration Management Program*, Section 10; EPA's *Guidance for Implementation of the General Duty Clause Clean Air Act Section*

112(r)(1), available at http://www.epa.gov/oem/docs/chem/gdcregionalguidance.pdf; and *IIAR's Process Safety Management Guidelines for Ammonia Refrigeration.*

35. As described in Paragraph 31 above, EPA inspectors observed potentially dangerous conditions at the Facility that indicated a failure to identify hazards associated with the ammonia refrigeration system. Moreover, Respondent was not able to produce a complete, up-to date process hazard analysis while the EPA inspectors were at the Facility that accounted for current conditions.

36. Accordingly, if Respondent has at least 10,000 pounds of anhydrous ammonia in the refrigeration system, it has violated the requirements to identify hazards as required under 40 C.F.R. § 68.67. If the refrigeration system contains less than 10,000 pounds of anhydrous ammonia, Respondent has violated the General Duty Clause's requirement to identify hazards associated with the refrigeration system using industry-recognized hazard assessment techniques, in violation of Section 112(r)(1) of the CAA, 42 U.S.C. § 7412(r)(1).

ADMINISTRATIVE ORDER

37. It is hereby ordered that Respondent shall take the following actions:

(a) **As soon as possible, but no later than January 3, 2013**, Respondent shall inform EPA whether it plans to, and has the means to, undertake the actions required by this Order;

(b) **As soon as possible, but no later than seven days after the effective date of this Order**, Respondent shall (i) engage a third-party ammonia refrigeration system expert ("Refrigeration Expert") to help conduct the work required by this Order and

Reporting Requirement, and (ii) submit the Refrigeration Expert's resume and qualifications to EPA.

(c) **As soon as possible, but no later than 30 days after the effective date of this Order,** Respondents shall conduct and submit a process hazard analysis. This process hazard analysis shall comply with the requirements of 40 C.F.R. § 68.67 in the event that the ammonia inventory does indeed exceed 10,000 pounds. This process hazard analysis shall include the Refrigeration Expert's recommendations and a schedule for implementing those recommendations.

38. Notice: Respondent shall submit all notices, schedules, work plans, analyses, certification, and documentation required by this order to:

Len Wallace
RCRA, EPCRA, and Federal Programs Unit (SER)
Office of Environmental Stewardship
EPA Region 1
Mailcode: OES05-1
5 Post Office Square, Suite 100
Boston, MA 02109-3912
(617) 918-1835

REPORTING REQUIREMENT

39. In addition to the compliance documentation required by paragraph 37 above, pursuant to Section 114(a)(1) of the CAA, 42 U.S.C § 7414(a)(1), Respondent shall submit the following information, audits, and reports to the EPA staff listed in paragraph 38 within thirty (30) days of the effective date of this NOV/AO/RR:

a. Conduct an audit of the ammonia inventory in Respondent's refrigeration system, using industry-recognized methodology, and provide EPA with such analysis and supporting documentation. Given the large amount of

piping involved in Respondent's refrigeration system, Respondent should include the piping in any inventory calculations.

b. Provide a copy of all the documentation that supports Respondent's 1999, 2000, 2003, 2004, and 2009 RMPs.

c. Describe the function of the emergency shut-off device, labeled "Remote King Valve Shutoff." Does this device only shut off the king valve, or does it operate to shut down other components of the refrigeration system?

ENFORCEMENT

40. At any time after the issuance of this AO, EPA may take any or all of the following actions: issue a further order requiring compliance with the Act; issue an administrative penalty order for up to $37,500 per day for each violation; or bring a civil or criminal action seeking an injunction and penalties. See Sections 113(a)-(d) of the CAA, 42 U.S.C. §§ 7413(a)-(d); 40 C.F.R. Part 19; and 73 Fed. Reg. 75340-75346 (December 11, 2008) (CAA penalties raised from $25,000 to $32,500 for violations occurring between March 15, 2004 and January 12, 2009, and to $37,500 for violations occurring after January 12, 2009). Be advised that Section 113(e)(2) of the Act, 42 U.S.C. § 7413(e)(2), contains provisions that affect the burden of proof with respect to violations which continue following issuance of a Notice of Violation.

41. Be advised that issuance of this NOV and AO does not preclude EPA from electing to pursue any other remedies or sanctions authorized by law that are available to address these and other violations. This NOV and AO do not resolve

Respondent's liability for past violations of the Act or for any violations that continue from the date of this NOV and AO up to the date of compliance.

42. Neither EPA nor the United States, by the issuance of this NOV/AO/RR, assumes any liability for any acts or omissions by Respondent or Respondent's employees, agents, contractors or consultants engaged to carry out any action or activity pursuant to this NOV/AO/RR; nor shall EPA or the United States be held as a party to any contract entered into by Respondent or Respondent's employees, agents, contractors or consultants engaged to carry out the requirements of this NOV/AO/RR.

EFFECTIVE DATE AND APPLICABILITY

43. The NOV/AO/RR shall take effect within twenty-five days of receipt.[1] The AO shall apply to Respondent, its officers, agents, servants, employees, successors and assigns, and to all persons, firms and corporations acting under, through or for Respondents. This action is not subject to Office of Management and Budget review under the Paperwork Reduction Act, 44 U.S.C. Chapter 35.

44. If Respondent has any questions regarding this NOV/AO/RR, please contact Len Wallace at (617) 918-1835, or have your legal counsel contact Catherine Smith, Senior Enforcement Counsel, at (617) 918-1777. Respondent may request an opportunity to confer with EPA about this NOV/AO/RR by contacting Len Wallace or

[1] This is an extended period of time due to the holidays. This period should be sufficient to allow an opportunity to confer in early January 2013 before the Administrative Order takes effect.

Catherine Smith at the phone numbers listed above within seven (7) days of receiving this NOV/AO/RR.

Sam Silverman, acting for

Susan Studlien, Director
Office of Environmental Stewardship
U.S. Environmental Protection Agency
Region 1 – New England

12-21-12

Date